

In the Claims:

1-8. (Cancelled)

9. (Original) In an implantable cardiac stimulation device, a method of determining a pacing rate, the method comprising:
monitoring an indicator of patient activity and generating corresponding signals;
processing the signals to determine a patient's activity level;
monitoring the patient's activity level for a predetermined change in the activity level; and
pacing at an orthostatic compensation pacing rate if the predetermined change in the activity level is sensed.

10. (Original) The method of claim 9, wherein:
monitoring the patient's activity level comprises determining a patient activity level and an activity variance measurement from the activity signal.

11. (Original) The method of claim 10, wherein pacing at the orthostatic compensation pacing rate is performed if the activity variance measurement is below a first predetermined threshold for a predetermined time period, followed by the activity level signal exceeding a second predetermined threshold.

12. (Original) The method of claim 9, wherein the orthostatic pacing rate abruptly increases the pacing rate to between about 80 and about 100 beats per minute and then slowly decreases the pacing rate over a period of about 20 seconds to one minute.

13. (Original) The method of claim 9, wherein monitoring the patient's activity level comprises monitoring for a period of inactivity followed by an activity level that exceeds a predetermined threshold.

14. (Original) The method of claim 9, wherein monitoring the indicator of patient activity comprises using at least one of an AC accelerometer, an oxygen saturation sensor, an impedance sensor, and a sensor that detects a change in at least one of an intracardiac electrogram and an evoked response signal.

15. (Original) An implantable cardiac stimulation device comprising:
means for monitoring an indicator of patient activity and for generating corresponding signals;
means for generating stimulation pulses; and
means for processing the signals to determine a predetermined change in patient activity level, and for implementing an orthostatic compensation therapy based on detecting the predetermined change, the means for processing comprising means for controlling the means for generating according to the orthostatic compensation therapy.

16. (Original) The implantable stimulation device of claim 15, wherein:
the means for processing further comprises means for implementing an orthostatic compensation therapy that abruptly increasing the pacing rate, followed by slowly decreasing the pacing rate.

17. (Original) The implantable stimulation device of claim 15, wherein the means for monitoring comprises at least one of an AC accelerometer, an oxygen saturation sensor, an impedance sensor, and a sensor that detects a change in at least one of an intracardiac electrogram and an evoked response signal.

18. (Original) The implantable stimulation device of claim 15, wherein:
the means for processing is operative to determine the need for orthostatic compensation therapy when the patient activity is below a first threshold for a predetermined time period, followed by the patient activity level exceeding a second threshold.

19. (Original) The Implantable stimulation device of claim 15, further comprising means for triggering pacing pulses, when the patient is not in need of orthostatic compensation therapy, at a pacing rate as determined from the sensor signals.